

In the claims

1. (original) A compound comprising a target specific portion and an effector portion wherein:

(i) the target specific portion comprises or consists of a monoclonal antibody having specificity for oncofoetal fibronectin, or a fragment or variant thereof which retains the binding specificity for oncofoetal fibronectin of the parent monoclonal antibody; and
(ii) the effector portion comprises or consists of interleukin-12, or a functional fragment or variant thereof

characterised in the monoclonal antibody having specificity for oncofoetal fibronectin binds to a region of oncofoetal fibronectin other than the ED-B region.

2. (original) A compound according to Claim 1 wherein the target specific portion is capable of binding to an amino acid sequence within the repeat 7 domain of fibronectin.

3. (currently amended) A compound according to Claim 1 ~~or 2~~ wherein the target specific portion is capable of binding an amino acid sequence within the repeat 7 domain of fibronectin.

4. (currently amended) A compound according to ~~any one of Claims 1 to 3~~ Claim 1 wherein the target specific portion is specific for human oncofoetal fibronectin.

5. (currently amended) A compound according to ~~any one of Claims 1 to 4~~ Claim 1 wherein the monoclonal antibody having specificity for oncofoetal fibronectin is a BC1 antibody, or an antibody capable of competing with the binding of a BC1 antibody to oncofoetal fibronectin.

6. (original) A compound according to Claim 5 wherein the monoclonal antibody having specificity for oncofoetal fibronectin is a BC1 antibody.

7. (currently amended) A compound according to ~~any one of the preceding claims~~ Claim 1 wherein the monoclonal antibody is a human or humanized antibody.

8. (currently amended) A compound according to Claim 6 ~~or 7~~ wherein the compound binds to oncofoetal fibronectin more tightly than the parent monoclonal antibody.

9. (original) A compound according to Claim 8 wherein the compound binds to oncofoetal fibronectin more at least 2-fold tighter than the parent monoclonal antibody.

10. (currently amended) A compound according to Claim 8-~~or 9~~ wherein the compound binds to oncofoetal fibronectin at least 10-fold tighter than the parent BC1 antibody binds to oncofoetal fibronectin.

11. (currently amended) A compound according to ~~any one of the preceding claims~~ Claim 1 wherein the target specific portion comprises a polypeptide of SEQ ID NO: 1.

12. (currently amended) A compound according to ~~any one of the preceding claims~~ Claim 1 wherein the target specific portion comprises a polypeptide of SEQ ID NO: 2.

13. (currently amended) A compound according to Claim 11 ~~or 12~~ wherein the target specific portion comprises a polypeptide of SEQ ID NO: 1 and a polypeptide SEQ ID NO: 2.

14. (currently amended) A compound according to ~~any one of the preceding claims~~ Claim 1 wherein the target specific portion comprises or consists of an antigen binding fragment of a monoclonal antibody having specificity for oncofoetal fibronectin.

15. (original) A compound according to Claim 14 wherein the target specific portion comprises or consists of an antigen binding fragment selected from the group consisting of FAB-like molecules, such as Fab and F(ab')2, Fv molecules, disulphide-linked Fv molecules, ScFv molecules and single domain antibodies (dAbs).

16. (currently amended) A compound according to ~~any one of the preceding claims~~ Claim 1 wherein the target specific portion comprises one or more antibody constant regions.

17. (original) A compound according to Claim 16 wherein the one or more antibody constant regions comprises or consists of a CH1 domain.

18. (currently amended) A compound according to ~~any one of the preceding claims~~ Claim 1 further comprising an Fe moiety.

19. (original) A compound according to Claim 18 wherein the Fe moiety is derived from human IgG1.

20. (currently amended) A compound according to ~~any one of the preceding claims~~ Claim 1 wherein the target specific portion comprises or consists of a whole BC1 antibody.

21. (currently amended) A compound according to ~~any one of the preceding claims~~ Claim 1 wherein the effector portion comprises or consists of human interleukin-12, or a functional fragment or variant thereof.

22. (currently amended) A compound according to ~~any one of the preceding claims~~ Claim 1 wherein the effector portion comprises or consists of a single-chain interleukin-12.

23. (currently amended) A compound according to ~~any one of~~ Claim 22 wherein the single chain IL-12 consists of an IL-12p35 domain and an IL-12p40 domain.

24. (currently amended) A compound according to any one of Claim 23 wherein the IL-12p35 domain is conjugated to the IL-12p40 domain by a disulphide bond.

25. (currently amended) A compound according to any one of the preceding claims Claim 1 wherein the compound is a fusion protein.

26. (currently amended) A compound according to any one of the preceding claims Claim 1 wherein the target specific portion is fused to the effector portion.

27. (original) A compound according to Claim 26 comprising an immunoglobulin heavy chain fused to the effector portion.

28. (original) A compound according to Claim 27 wherein the immunoglobulin heavy chain and the effector portion are joined via a mutated linker sequence.

29. (original) A compound according to Claim 28 wherein the linker comprises or consists of the amino acid sequence ATATPGAA (SEQ ID NO: 5).

30. (currently amended) A compound according to any one of the preceding claims Claim 1 wherein the compound comprises a polypeptide of SEQ ID NO: 6.

31. (currently amended) A compound according to any one of the preceding claims Claim 1 wherein the compound comprises a polypeptide of SEQ ID NO: 7.

32. (currently amended) A compound according to Claim 30 and 31 wherein the compound comprises a polypeptide of SEQ ID NO:6 and a polypeptide of SEQ ID NO:7.

33. (currently amended) A compound according to any one of Claims 30 to 32 Claim 30 further comprising a polypeptide of SEQ ID 4 linked by disulphide bond to the polypeptide of SEQ ID NO:6.

34. (original) A fusion protein comprising antibody V regions directed against oncofoetal fibronectin, an Fe moiety, and an interleukin-12 moiety.

35. (currently amended) A nucleic acid molecule encoding a compound according to ~~any one of Claims 1 to 34~~ Claim 1 or a target specific portion, effector portion or component polypeptide thereof.

36. (currently amended) A nucleic acid molecule according to Claim 34 wherein the molecule comprises one or more of the nucleotide sequences selected from the ~~groups~~ group consisting of SEQ ID NOS: ~~8 to 10~~ NO: 8, 9, and 10.

37. (original) A nucleic acid molecule according to Claim 36 wherein the molecule comprises the nucleotide sequence of SEQ ID NO: 8.

38. (currently amended) A nucleic acid molecule according to Claim 36 ~~or 37~~ wherein the molecule comprises the nucleotide sequence of SEQ ID NO:9.

39. (currently amended) A nucleic acid molecule according to ~~any one of Claims 36 to 38~~ Claim 36 wherein the molecule comprises the nucleotide sequence of SEQ ID NO: 8 and the nucleotide sequence of SEQ ID NO: 9.

40. (currently amended) An expression vector comprising a nucleic acid molecule according to ~~any one of the Claims 35 to 39~~ Claim 35.

41. (currently amended) A host cell comprising a nucleic acid molecule according to ~~any one of Claims 35 to 30~~ Claim 35 or a vector according to Claim 40.

42. (currently amended) A method of making a compound according to ~~any one of Claims 1 to 34~~ Claim 1, or a target specific portion, effector portion or component polypeptide

thereof, comprising expressing a nucleic acid molecule according to ~~any one of Claims 35 to 39~~ Claim 35 in a host cell and isolating the compound, portion or component polypeptide therefrom.

43. (currently amended) A pharmaceutical composition comprising a compound according to ~~any one of Claims 1 to 34~~ Claim 1 and a pharmaceutically acceptable carrier.

44. (original) A pharmaceutical composition according to Claim 43 wherein the composition is suitable for parenteral administration.

45. (currently amended) A compound according to ~~any one of Claims 1 to 34~~ Claim 1 for use in medicine.

46. (canceled)

47. (currently amended) A method of treating a patient with cancer, the method comprising administering a compound according to ~~any one of Claims 1 to 34~~ Claim 1 to said patient.

48. (currently amended) ~~The A use according to Claim 46 or a method according to~~ Claim 47 wherein the mammal is a human.

49. (currently amended) ~~The A use according to Claim 46 or a method according to~~ Claim 47 wherein the patient has a solid tumor.

50. (currently amended) ~~The A use according to Claim 46 or a method according to~~ Claim 47 wherein the cancer is a glioblastoma.

51. (canceled)

52. (canceled)